A Global LNG Update

Energy Bar Association
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WHAT IS THE CENTER FOR LNG?

- Committee of the Natural Gas Supply Association
- LNG producers, shippers, terminal operators
- Public education and policy development that support LNG’s increasing contribution toward meeting the nation’s energy needs and supporting economic growth
CLNG ACTIVITIES

- Education
- Government Outreach
- Technical Analysis
- Legislative & Regulatory Analysis
- Media
THE EVOLVING GLOBAL LNG MARKET

- Robust global demand slated to continue through 2040, including growth in new markets
- Australia & U.S projects provide new supply to meet growing demand
- Potential supply gap developing in medium-term, following slowing FID
- Buyers favor shorter & more flexible contracts
WHERE IS GLOBAL SUPPLY COMING FROM?

- A global supply race is underway
- Australia and Qatar continue to dominate
- US to be 3rd largest supplier by 2019

UNDER CONSTRUCTION LNG EXPORT CAPACITY

- United States 51.0 MMTPA
- Russia 16.5 MMTPA
- Australia 26.2 MMTPA
- Cameroon 1.2 MMTPA
- Malaysia 1.2 MMTPA
- Indonesia 3.8 MMTPA

Total: 100 MMTPA

Source: EVA Quarterly LNG Outlook
• Since February of last year US LNG cargoes have reached 25 countries

• More and more LNG export terminals will come online in the coming years

• US is the fastest growing in terms of adding capacity
US REGULATORY ENVIRONMENT

- A new administration brings a new opportunity for LNG
- Legislative solutions proposed recently on Capitol Hill can create regulatory certainty
- Recent court cases shape the LNG environment
- FLNG export terminal Delfin gets approval
For more information visit:

www.lngfacts.org

The Center for Liquefied Natural Gas
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Energy Bar Association
Energizer on Geopolitical Impact of LNG Exports
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The Honorable Branko Terzic
Natural Gas in the USA

U.S. primary energy consumption by source and sector, 2016
Total = 97.4 quadrillion British thermal units (Btu)
Oil Shale and Natural Gas Shale – Where they are

North American shale plays (as of May 2011)

- Current shale plays
- Stacked plays
  - Shallowest/youngest
  - Intermediate depth/age
  - Deepest/oldest
- Mixed shale & chalk play
- Mixed shale & limestone play
- Mixed shale & tight dolostone-siltstone-sandstone play
- Prospective shale plays
- Basins

Source: U.S. Energy Information Administration based on data from various published studies. Canada and Mexico plays from ARI. Updated: May 9, 2011
Shale basins and the U.S. pipeline grid

Source: American Clean Skies Foundation.
Natural Gas Shale Worldwide
Abundance Fosters LNG Liquidity

The share of spot and ST trade increased to 28% of total by 2015

West of Suez LNG Demand 75 Bcm

East of Suez LNG Demand 269 Bcm

Sources: BRG Analysis, IHS Waterborne, GIIGNL
US LNG Advantages

- LNG provided by fully commercial enterprises
- Offering flexible export contracts
- Stable democracy
- Reliable legal system
- Transparent operations
- Henry Hub pricing
- Technically advanced
- Multiple production fields
- Extensive and expanding natural gas pipeline system
- No “transit” country risk
- New routes via Panama
Growth of LNG Markets

• Global Gas Market
  – World doubling by 2020 to 36 bcfd
  – 39 countries imported LNG 2016, 14 since 2005, 14 FSRU
  – More diversified buyers
• Asian Gas Markets 27% US cargoes
  – China, India, Pakistan growing
  – Decline in Japan
• European Gas Markets 17%
  – Baltics, Ukraine & Poland – US LNG as Russian competition “security premium?”, small scale terminal,
  – Central and Eastern – high dependency on Russia
  – Western – US LNG on price and diversification
• Latin American Gas Markets 44%
• Middle East 12%
• Black Sea Developments
Geopolitics of LNG

- Russia
- Europe
- China
- Asia
- Australia
- Middle East
- Turkey
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